

ABSTRACT

Ultra fine TaC-transition metal based complex powder is prepared by: dispersing a mixture of a Ta-containing material and a transition metal-containing water soluble salt into a solvent; stirring the mixture and spray-drying the stirred material to obtain precursor powder; 5 calcining the precursor powder to form ultra fine Ta-transition metal complex oxide powder; mixing the ultra fine Ta-transition metal complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere.